

Enterprise Goals

- Develop creative minds for innovative solutions by establishing a community between our enterprise students, and other students around campus.
- Cultivate leadership and professional skills for career success by providing a realistic industry experience and volunteer opportunities.
- Build professional relationships with industry and government partners to provide networking opportunities for our students.

Mission Statement

Blue Marble Security Enterprise provides innovative projects for Michigan Tech undergraduate students. Our projects are sponsored by industry players who have built a connection with Michigan Tech. Our students produce creative solutions and receive professional development and experiential learning. Our culture nurtures innovation and cultivates leadership.

Contact Us

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Join us! We provide:

- Resume-building projects in a variety of industries.
- Opportunities to work closely with members in different majors.
- Leadership opportunities
- Lab and working facilities

Majors Looking For:

- Mechanical Engineers
- Electrical Engineers
- Computer Science
- Business/Marketing
- Software Engineers

Blue Marble Security

Enterprise at Michigan Tech

We all live on the same small blue marble, and security is an issue for every one of us.





About Our Enterprise

Our enterprise currently consists of around 40 members and 7 project teams.

The enterprise follows a company structure. Each team has a document chief, financial manager, and a project manager. There is also a management board including President, VP of Public Relations, VP of Communications, VP of Operations, VP of Finance, and a Lab Manager.

Companies who have successfully worked with us in the past and are looking to sponsor new projects include Caterpillar INC, General Motors, the Navy, and Oshkosh Corp.

TEAMS AND THEIR MISSIONS

Oshkosh Baja

Improve and evaluate the current suspension system on vehicle for company. Opportunities to gain experience working with Military/DoD vehicles and real-world testing with DoD standards.



Navy Smart Tow

Create a tow line capable of remotely detaching for use with Navy submersible. Involves mechanical design, finite element analysis, signal processing and circuit design.

Navy Atmosphere Monitoring Conditioning and Purification

Develop a system capable of monitoring and maintaining levels of identified gases of interest and purifying air inside a dry combat Navy submersible. Involves use of embedded systems, microcontrollers, and filtration design.



UP Community Energy

Provide a cost-effective systems approach to energy production and storage in the local community. Involves data analysis and optimization using MATLAB programming.

GM Pick Point System

Develop a cost effective and highly accurate pick point system for use in GM manufacturing environments using commercial off the shelf (COTS) components. Involves machine learning, computer vision, and robotics.



GM Digital Twin

Emulate a GM assembly line cell in a virtual environment in order to provide a virtual environment similar to the real cell, allowing testing to occur without disruption of the physical cell. Involves simulation, CAD, scripting, and controls engineering.

MTU Library Mobile Shelving

Redesign mobile bookshelf system on the ground floor of the library in order to decrease costs while following safety and reliability standards.